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File Code: 3420 **Date:** September 8, 2004
Route To:

Subject: Post Treatment Evaluation of MCH & Spruce Beetle Activity, Pinaleno Mts.

To: District Ranger, Safford RD

On August 17, 2004, I met with Lisa Angle, Forester on the Safford RD, Coronado NF, to conduct a post treatment evaluation of MCH and assess bark beetle activity at several recreation and administrative sites on the Pinaleño Mountains. This report summarizes the evaluation results and spruce beetle activity within the project area.

Background. Spruce beetle populations started to increase in the mid 1990's after a winter storm damaged a significant number of spruce near Mt. Grahma. Subsequent spruce defoliation by a moth (*Nepytia janetae*) and spruce aphid (*Elatobium abietinum*) and persistent drought conditions have enabled the spruce beetle outbreak to continue. This is the forth year of spruce beetle monitoring and treatment in and adjacent to several recreation and administrative sites on the Pinaleño Mountains. An integrated pest management approach was adopted in 2001 and since that time approximately 432 beetle-infested spruce trees have been removed from these sites, Table 1. In early May of this year MCH, an anti-aggregation pheromone for spruce beetle, was deployed in a grid pattern in each of the sites listed in Table 1. This treatment was to further mitigate against additional spruce beetle attacks.

Table 1. Infested spruce removed from high value sites in 2001-2003. Also, current attacks identified at these sites during a recent site visit.

Recreation site	Number of Infested Spruce Removed			# of New Infested Spruce
	2001	2002	2003	2004
Shannon C.G.	56	12	27	5
Hospital Flat C.G.	93	6	20	8
Solider Creek C.G.	37	48	39	15
Columbine Admin. Site	8	2	5	0
Columbine Summer Homes	50	6	23	9
TOTAL	**244**	**74**	**114**	**37**

Current Situation. A 100 percent survey of spruce within and adjacent to the above mentioned sites was conducted during this site visit. There were 37 currently infested spruces at these sites, Table 1. This is the lowest level of activity at these sites since treatment intervention and is most likely directly related to past treatment and the use of MCH this year.

Recommendations. I recommend that the 37 residual spruce currently infested with beetles be cut and removed from the site as soon as possible. These trees were identified using orange flagging at each site. Stumps should be cut as low as possible and burned to kill brood if and when possible. A portion of the spruce beetle population will migrate to the lower portion of

attacked boles to avoid winter predation from woodpeckers and extreme low temperatures. I would also recommend treating the same areas with MCH in 2005, as adjacent beetle populations continue to be at moderate to high levels.

Funding may be available from Forest Health Protection to continue bark beetle treatments within these high value sites. Requests for these funds should be submitted to the Regional Office no later than October 15, 2004. If you have any questions regarding this assessment or recommendations please let me know.

/s/ John Anhold
JOHN ANHOLD
Arizona Zone Leader Forest Health

cc: Randall A Smith, Robert Lefevre, Lisa Angle, Joel McMillin, Debra Allen-Reid, Mailroom R3 Coronado